

Remarks

Claims 1-11 are pending in the application. Claims 1-11 are rejected.

Claim 1 is objected to due to an informality. Claim 1 has been amended to correct the informality.

Claims 1-6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards et al., U.S. Patent Application Publication No. 2003/0232612 (Richards) in view of Ylitalo et al., U.S. Patent No. 6,215,814 (Ylitalo), Tewfik et al., U.S. Patent Application Publication No. 2004/0141559 (Tewfik) and Nilsson, U.S. Patent No. 6,835,689 (Nilsson).

MPEP 2141.01(a) states that, in order to rely on a reference under 35 U.S.C. 103, it must be analogous art. The Examiner's rejection includes three references (Ylitalo, Tewfik and Nilsson) that are not analogous art. As was stated in the Applicants' response to the previous office action, the subject matter of the claimed invention is channel estimation in UWB systems. As a UWB communication device typically has a total transmit power of about 1/10 mW, or about -10 dBm, across its entire signal bandwidth, the range of UWB signals is typically less than 20 meters. Therefore, conventional radio systems such as described in Ylitalo, Tewfik and Nilsson, for use in mobile telephones, are not analogous art. These references cannot be used to render the claimed invention obvious according to the mandates of the MPEP and related case law.

Furthermore, the teachings of Richards cannot be combined with the teachings of Ylitalo, Tewfik and Nilsson. Richards deals with UWB communications while Ylitalo, Tewfik and Nilsson, as stated above, describe conventional radio systems. Whatever is taught by Ylitalo, Tewfik and Nilsson would have to undergo substantial reconstruction and redesign in order to be combined with Richards. This is not allowable according to the directives of the MPEP, see MPEP 2143.01.

Claims 7, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards in view of Ylitalo, Tewfik and Nilsson, and further in view of Jung et al., U.S. Patent Application Publication No. 2004/0097204 (Jung).

The addition of Jung does nothing for the Examiner's case for obviousness as Ylitalo, Tewfik and Nilsson remain nonanalogous art and uncombinable with Richards.

As the Examiner has failed in meeting her burden of establishing a *prima facie* case of obvious, the Applicants are under no obligation to present evidence of nonobviousness, see MPEP 2142. Applicants respectfully request that the Examiner withdraw her rejections.

It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicants'

attorney at the number listed below. Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-0749.

Respectfully submitted,
Mitsubishi Electric Research Laboratories, Inc.

By

/Clifton D. Mueller/

Clifton D. Mueller
Attorney for the Assignee
Reg. No. 57,836

201 Broadway, 8th Floor
Cambridge, MA 02139
Telephone: (617) 621-7517
Customer No. 022199